

CLAIMS

What is claimed is:

1. An apparatus adapted to dispense a web of sheet material from a
5 continuous roll, the apparatus comprising:
a support configured to rotatably support a roll of sheet material
which includes identification relating to a type of sheet material on a roll;
an identifier configured to identify the type of sheet material on the
roll from the identification;
10 a processor configured to receive data relating to the type of the
sheet material on the roll, the processor further configured to process the
data and generate an output command; and
a controller configured to control the length of sheet material
dispensed from the roll in response to the output command.
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2. The apparatus of claim 1, wherein the identifier comprises a reader
for reading data from identification on the roll of sheet material.
3. The apparatus of claim 2, wherein the reader is designed to read
20 data from a label, a logo, a bar code, a magnetic strip, an RFID tag,
or a hologram on the roll of sheet material.
4. The apparatus of claim 2, wherein the reader is arranged to read
data from identification on a core of the roll of sheet material.
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5. The apparatus of claim 2, wherein the read is arranged to read data
from identification on the sheet material.
6. The apparatus of claim 2, wherein the identification on the roll of
30 sheet material is encoded, and the apparatus includes a decoder for
decoding the encoded data.

7. The apparatus of claim 2, wherein the reader is positioned inside of the dispenser.
- 5 8. The apparatus of claim 2, wherein the reader is positioned adjacent the dispenser.
9. The apparatus of claim 3, wherein the reader is arranged to read data from an RFID tag embedded in or attached to a core of the roll of sheet material.
- 10 10. The apparatus of claim 1, including an infrared emitter/detector circuit which is arranged to emit infrared light into a core of the roll of sheet material, and to detect reflection of the light off reflective identification on a core of the roll.
- 15 11. The apparatus of claim 10, wherein the reflective identification is configured such that the reflectivity is controlled, therefore permitting control of total reflected light.
- 20 12. The apparatus of claim 1, including electrical contacts which are arranged to engage identification in the form of a conductor on a core of the sheet material roll.
- 25 13. The apparatus of claim 1, wherein the processor is arranged to receive data from the identifier, to process the data, to generate an output command, and to transmit the output command to the controller.
- 30 14. The apparatus of claim 1, wherein the processor includes an algorithm stored in a chip set embedded on a printed circuit board

15. The apparatus of claim 1, wherein the processor is arranged to receive data from the identifier, to process the data, to generate an output command, and to transmit the output command to the controller.
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16. The apparatus of claim 1, wherein the support is contained within a dispenser housing.
17. The apparatus of claim 14, wherein an activation switch is provided for activating the identifier when the dispenser housing is opened, thereby to allow identification of a roll of sheet material inserted onto the support.
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18. The apparatus of claim 15, wherein a deactivation switch is provided for deactivating the identifier after identification of the sheet material on the roll.
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19. The apparatus of claim 16, including a delay switch for providing a delay between successive dispensing operations.
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20. The apparatus of claim 17, including a lockout switch for preventing operation of the controller when the dispenser housing is open.
21. The apparatus of claim 1, including an electric motor for automatically dispensing the sheet material.
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22. The apparatus of claim 19, wherein the controller controls the number of revolutions of the electric motor in response to the output command.
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23. The apparatus of claim 19, wherein an external sensor is provided for sensing a user's hand, and the electric motor is activated so as to dispense sheet material in response to the sensing of the user's hand.

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24. A roll of sheet material for use in the apparatus of claim 1, the roll including identification which is identifiable by the identifier so as to allow for the controlled dispensing of sheet materials from the roll.

10 25. A dispenser for dispensing sheet material from a supply roll including identification relating to the type of sheet material on the roll, the dispenser comprising:

a dispenser housing;

a support for rotatably supporting the supply roll within the dispenser

15 housing;

an identifier on or adjacent the support for identifying the type of sheet material on the roll from the identification;

a processor for receiving identification data from the identifier, processing the data and generating an output command; and

20 a controller for controlling the length of sheet materials dispensed from the supply roll in response to the output command

26. A method of dispensing a web of sheet material from a continuous roll, the method comprising:

25 providing a roll of sheet material which includes identification relating to a type of sheet material on the roll;

rotatably supporting the roll of sheet material adjacent an identifier in a dispenser housing;

identifying the type of sheet material on the roll;

30 processing data relating to the type of sheet material on the roll to generate an output command; and

controlling a length of sheet material dispensed from the roll in response to the output command.

27. The method of claim 24, wherein the identifier comprises a reader,
5 and the step of identifying the type of sheet material on the roll comprises reading data from identification on the roll of sheet material.
28. The method of claim 25, wherein the step of reading data comprises
10 reading data from a label, a logo, a bar code, a magnetic strip, a RFID, or a hologram on the roll of sheet material.
29. The method of claim 25, wherein the step of reading data comprises reading data from identification on a core of the roll of sheet material.
- 15 30. The method of claim 25, wherein the step of reading data comprises reading data from identification on the sheet material.
31. The method of claim 25, wherein the step of identifying the type of
20 sheet material on the roll includes decoding encoded identification on the roll of sheet material.
32. The method of claim 27, wherein the step of reading data comprises
25 reading data from an RFID tag embedded in or attached to the core of the roll of sheet material.
33. The method of claim 25, wherein the step of identifying the type of
sheet material on the roll comprises emitting infrared light into the
core of the sheet material roll, and detecting reflection of the light off
reflective identification on the core of the roll.
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34. The method of claim 24, including the step of activating the identifier when the dispenser housing is opened so as to allow for identification of the type of sheet material on a roll inserted onto the support.
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35. The method of claim 32, including the step of deactivating the identifier after identification of the sheet material on the roll.
36. The method of claim 24, including the step of providing a delay between successive dispensing operations.
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37. The method of claim 24, including the step of dispensing the length of sheet material with an electric motor.
38. The method of claim 35, including the step of dispensing the length of sheet material in response to sensing a user's hand adjacent the dispenser housing.
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39. A roll of sheet material for use in the method of claim 23, the roll including identification which is identifiable by the identifier so as to allow for the controlled dispensing of sheet materials from the roll.
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40. An apparatus for dispensing a web of sheet material from a continuous roll, the apparatus comprising:
a support for rotatably supporting a roll of sheet material which includes identification relating to the type of sheet material on the roll;

5 a microcontroller for controlling the length of sheet material dispensed from the roll;

a first network operating in accordance with a predetermined protocol;

a second network comprising a plurality of said microcontrollers;

10 a gateway operatively coupled to said first network and to said second network; and

an HTTP server embedded in one of said gateway and said plurality microcontrollers.

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